

AMENDMENTS TO THE CLAIMS

1
2 1. (Cancelled)

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4 2. (Previously Amended) The method of claim 21, wherein said
5 data for said plurality of customer locations includes travel
6 time and cost to transfer a part from each of said plurality of
7 stocking locations to each of said customer locations.

8
9 3. (Currently Amended) A method of determining inventory levels
10 of parts for a plurality of stocking locations within a
11 neighborhood of a primary location, wherein said parts are
12 normally stocked at more than one of said stocking locations,
13 said method comprising:

14
15 providing data for plurality of customer locations, unit price
16 of said parts, request rates for each of said parts for each of
17 said customer locations, handling costs for each of said
18 stocking locations, and travel time and transportation cost
19 between said stocking locations, wherein said request rates
20 include a probability distribution for one or more of said
21 request rates;

22
23 specifying a parts procurement time performance measure for
24 transfer of said parts from said plurality of stocking locations
25 to said plurality of customer locations, wherein said parts
26 procurement time performance measure comprises the percentage of
27 parts in said request rates which can be transferred from any
28 said stocking location to each respective said customer location
29 within a pre-specified time, and wherein equipment requiring one

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1 or more of said parts is installed at one or more of said
2 plurality of customer locations;
3
4 entering said data and said performance measure into an
5 optimization computer program;
6
7 computing said inventory levels of said parts for said plurality
8 of stocking locations using said optimization computer program;
9 and
10
11 ordering sufficient numbers of said parts to maintain said
12 inventory levels at said plurality of stocking locations,
13 wherein said inventory levels are such that said performance
14 measure is met.
15
16 4. (Original) The method of claim 3, wherein said probability
17 distribution is a Poisson distribution.
18
19 5. (Cancelled)
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21 6. (Currently Amended) A method of determining inventory levels
22 or parts for a plurality of stocking locations within a
23 neighborhood of a primary location, wherein said parts are
24 normally stocked at more than one of said stocking locations,
25 said method comprising:
26
27 providing data for a plurality of customer locations, unit price
28 of said parts, request rates for each of said parts for each of
29 said customer locations, handling costs for each of said

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1 stocking locations, and travel time and transportation cost
2 between said stocking locations;
3
4 specifying a parts procurement time performance measure for
5 transfer of said parts from said plurality of stocking locations
6 to said plurality of customer locations, wherein said parts
7 procurement time performance measure comprises the percentage of
8 parts in said request rates which can be transferred from any
9 said stocking location to each respective said customer location
10 within a pre-specified time, wherein said parts are grouped by
11 importance into a plurality of groups and said pre-specified
12 time comprises a corresponding plurality of times, and wherein
13 equipment requiring one or more of said parts is installed at
14 one or more of said plurality of customer locations;
15
16 entering said data and said performance measure into an
17 optimization computer program;
18
19 computing said inventory levels of said parts for said plurality
20 of stocking locations using optimization computer program; and
21
22 ordering sufficient numbers of said parts to maintain said
23 inventory levels at said plurality of stocking locations,
24 wherein said inventory levels are such that said performance
25 measure is met.
26
27 7. (Original) The method of claim 6, wherein inventory levels
28 are computed to minimize overall cost while meeting or exceeding
29 said plurality of times.
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1 8. (Previously Amended) The method of claim 21, wherein said
2 optimization computer program is a mixed integer optimization
3 program.
4

5 9. (Previously Amended) The method of claim 21, wherein said
6 inventory levels are computed to meet a total inventory cost
7 while maximizing the percentage of said parts in said request
8 rates which can be transferred from any said stocking location
9 to each respective said customer location within a pre-specified
10 time.
11

12 10. (Previously Amended) The method of claim 21, further
13 comprising computing an estimated time for each part to be
14 transferred from any said stocking location to each respective
15 said customer location for each of said parts in said request
16 rates.
17

18 11 - 18 (Cancelled)
19

20 19. (Currently Amended) A computer program product for
21 instructing a processor to determine inventory levels of parts
22 for a plurality of stocking locations within a neighborhood of a
23 primary location, wherein said parts are normally stocked at
24 more than one of said stocking locations, said computer program
25 product comprising;
26

27 a computer readable medium;
28

29 first program instruction means for providing data for a
30 plurality of customer locations, unit price of said parts,

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1 request rates for each of said parts for each of said customer
2 locations, handling costs for each of said stocking locations,
3 and travel time and transportation cost between said stocking
4 locations, wherein said request rates include a probability
5 distribution for one or more of said request rates;

6
7 second program instruction means for specifying a parts
8 procurement time performance measure for transfer of said parts
9 from said plurality of stocking locations to said plurality of
10 customer locations; wherein said parts procurement time
11 performance measure comprises the percentage of parts in said
12 request rates which can be transferred from any said stocking
13 location to each respective said customer location within a pre-
14 specified time, and wherein equipment requiring one or more of
15 said parts is installed at one or more of said plurality of
16 customer locations;

17
18 third program instruction means for providing said data and said
19 performance measure to an optimization computer program;

20
21 fourth program instruction means for computing said inventory
22 levels of said parts for said plurality of stocking locations
23 using said optimization computer program; and

24
25 fifth program instruction means for ordering sufficient numbers
26 of said parts to maintain said inventory levels at said
27 plurality of stocking locations, wherein said inventory levels
28 are such that said performance measure is met; and wherein

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30 all said program instruction means are recorded on said medium.

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2 20. (Cancelled)

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4 21. (Currently Amended) A method of determining inventory levels
5 of parts for a plurality of stocking locations within a
6 neighborhood of a primary location, wherein said parts are
7 normally stocked at more than one of said stocking locations,
8 said method comprising:

9
10 providing data for a plurality of customer locations, unit price
11 of said parts, request rates for each of said parts for each of
12 said customer locations, handling costs for each of said
13 stocking locations, and travel time and transportation cost
14 between said stocking locations;

15
16 specifying a parts procurement time performance measure, wherein
17 said parts procurement time performance measure comprises the
18 percentage of parts in said request rates which can be
19 transferred from any said stocking location to each said
20 respective customer location within a pre-specified time, and
21 wherein said parts are grouped by importance into a plurality of
22 groups and said pre-specified time comprises a corresponding
23 plurality of times;

24
25 entering said data and said performance measure into an
26 optimization computer program;

27
28 computing said inventory levels of said parts for said plurality
29 of stocking locations using said optimization computer program;
30 and

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2 ordering sufficient numbers of said parts to maintain said
3 inventory levels at said plurality of stocking locations.
4

5 22. (Previously Presented) The method of claim 21, wherein
6 inventory levels are computed to minimize overall cost while
7 meeting or exceeding said plurality of times.
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9 23. (Cancelled)
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